Drilling Logs of Government Core Drills 1982

compiled by
Ian MacDougall and D.E. Polley

Department of
Mines and Energy

Department of
Mines and Energy

Report 83-3

DRILLING LOGS

OF

GOVERNMENT CORE DRILLS

1982

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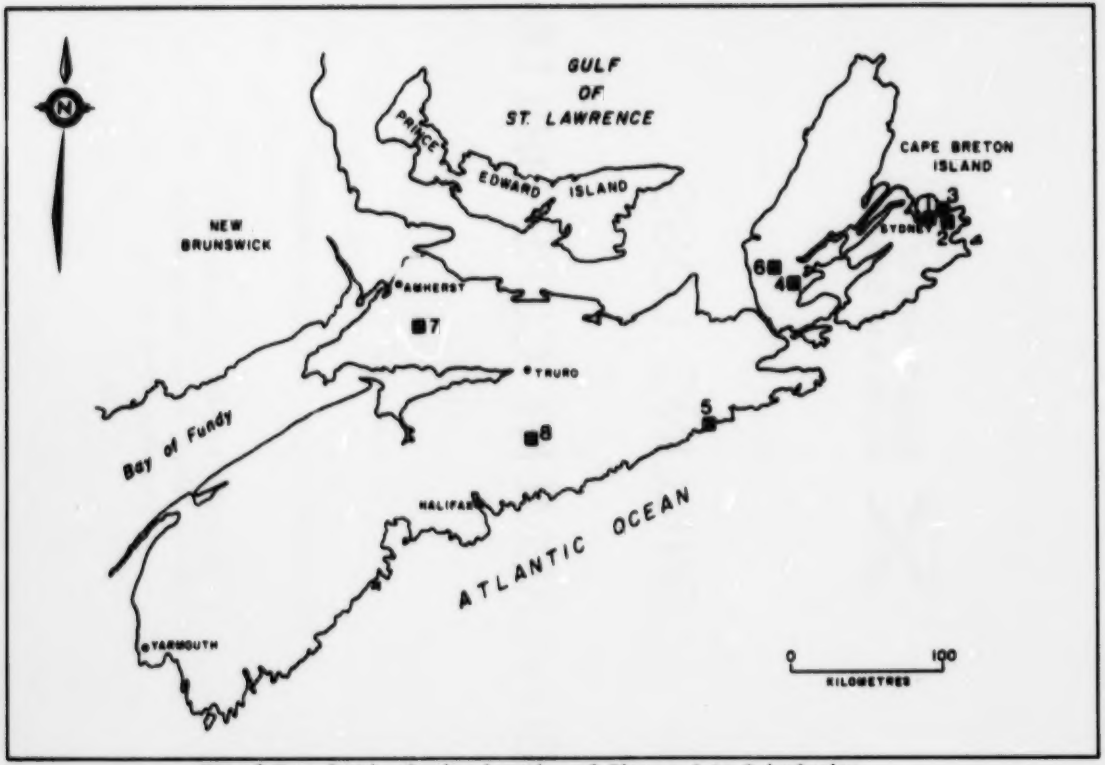
Honourable Ron Barkhouse, Minister
John J. Laffin, P.Eng., Deputy Minister
HALIFAX, NOVA SCOTIA
1983



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DRILLERS LOGS OF GOVERNMENT CORE DRILLS

1982

Ian MacDougall[1] and D. E. Pulley[2]

During the year 1982 the Department of Mines and Energy's drills were used on a number of projects. These included exploration for coal, gypsum, clay, silica sand, gold and for structural studies. This report contains the drillers' logs for 85 drillholes with a total footage of 19 617 feet (5979.3 m).

Note that both systems of measurements are used (metres and feet) as shown in this report.

Again, the authors would like to acknowledge the assistance of Mrs. Lois Tower in the preparation of this report and Mrs. Kathy Mills, who does the editing.

Drill No. 18 was used to drill a vertical hole northeast of the Louisbourg highway near Sydney, Cape Breton County. The work was done from March 10 to July 14, 1982. The hole was abandoned at 1013.0 m after the rods became stuck in the hole. The purpose of the hole was for geological information and was done under Special Investigations, Nova Scotia Department of Mines and Energy (Fig. 1).

Record No. 7505

Borehole No. DDH-1 is located by Map Reference 11E/01A, Tract 90, Claim E.

Strata	Thickness (m)	Total Depth (m)
Overburden	13.7	13.7
Red mudstone and siltstone	18.0	31.7
Red mudstone and siltstone	22.6	54.3
Red and grey mudstone and siltstone	17.0	71.3
Sandstone, red and grey	12.2	83.5
Siltstone and shale, red and grey	36.6	120.1
Shale, red and grey	18.3	138.4
Sandstone	67.0	205.4
Shale and sandstone	21.4	226.8
Sandstone	114.2	341.0
Sandstone mixed with shale	79.0	420.0

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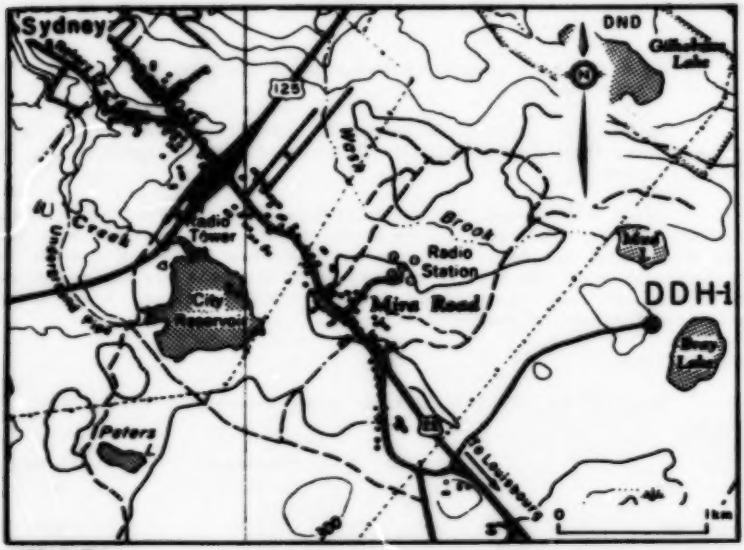
Shale, grey and black	31.0	451.0
Sandstone and shale, grey and black	63.0	514.0
Shale and sandstone, grey	180.0	694.0
Sandstone and shale, grey	166.0	860.0
Anhydrite, grey	11.0	871.0
Sandstone, grey	26.0	897.0
Clay	3.0	900.0
Shale, red and grey	113.0	1013.0



NTS 11K/01A

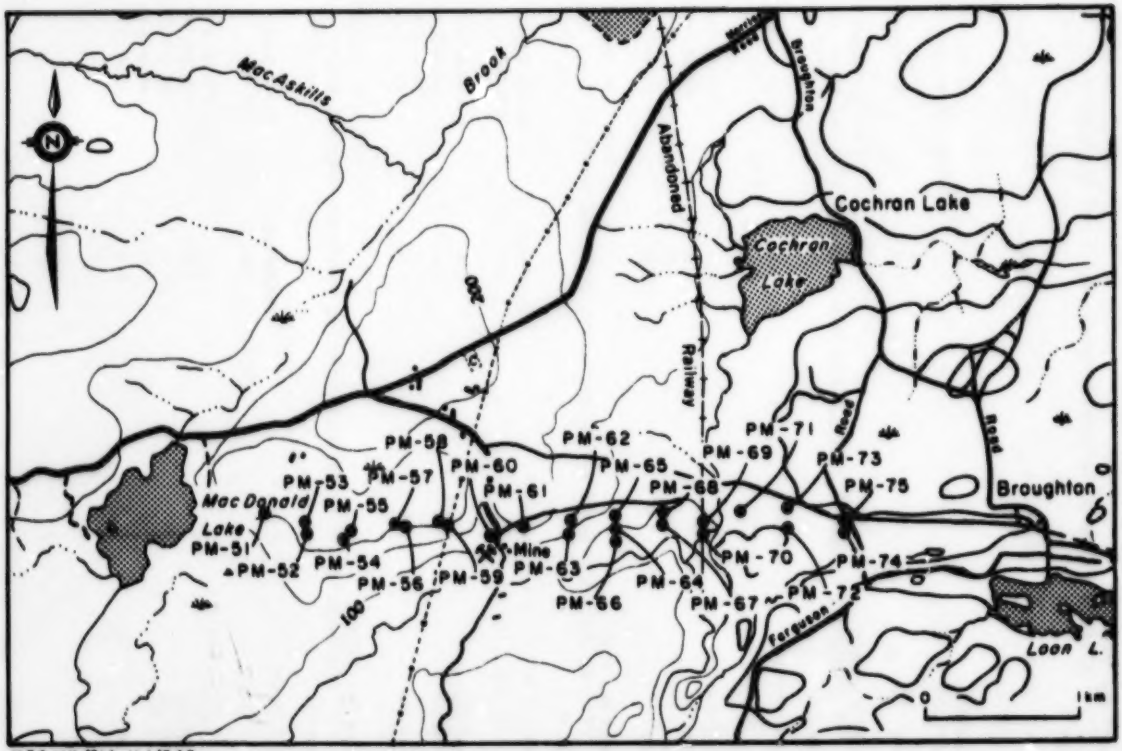
Figure 1. Sydney-Louisbourg Highway, Cape Breton County.

Drill No. 19 was used on the Coal Inventory Program to drill 25 holes in Broughton, Cape Breton County. The work was done between May 31 and August 19, 1982. The purpose was to test the Tracy seam and was a continuation of drilling done previously. All holes are vertical (Fig. 2).

Record No. 7506

Borehole No. PH-51 is located by Map Reference 11K/01A, Tract 74, Claim D.

Strata	Thickness (m)	Total Depth (m)
Overburden	2.8	2.8
Sandstone	16.7	19.5
Coal	1.0	20.5
Shale	6.0	26.5



NTS 11K/01A,11J/04B

Figure 2. Broughton, Cape Breton County.

Record No. 7507

Borehole No. PH-52 is located by Map Reference 11K/01A, Tract 74, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Sandstone	7.6	14.6
Coal	1.0	15.6
Shale	8.0	23.6

Record No. 7508

Borehole No. PH-53 is located by Map Reference 11K/01A, Tract 74, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	2.8	2.8
Sandstone	20.8	23.6
Coal	1.0	24.6
Shale	8.0	32.6

Record No. 7509

Borehole No. PH-54 is located by Map Reference 11K/01A, Tract 74, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	6.0	6.0
Sandstone	6.6	12.6
Coal	1.0	13.6
Shale	10.0	23.6

Record No. 7510

Borehole No. PH-55 is located by Map Reference 11K/01A, Tract 74, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	3.6	3.6
Sandstone	2.0	5.6
Sandstone	22.4	28.0
Coal	1.0	29.0
Shale	6.6	35.6

Record No. 7511

Borehole No. PM-56 is located by Map Reference 11K/01A, Tract 74, Claim B.

Strata	Thickness (m)	Total Depth (m)
Overburden	6.0	6.0
Sandstone and shale	14.6	20.6
Coal	1.0	21.6
Sandstone	4.9	26.5

Record No. 7512

Borehole No. PM-57 is located by Map Reference 11K/01A, Tract 74, Claim B.

Strata	Thickness (m)	Total Depth (m)
Overburden	6.6	6.6
Sandstone	28.0	34.6
Coal	1.0	35.6
Shale	6.0	41.6

Record No. 7513

Borehole No. PM-58 is located by Map Reference 11K/01A, Tract 74, Claim A.

Strata	Thickness (m)	Total Depth (m)
Overburden	4.0	4.0
Sandstone	18.4	22.4
Coal	1.4	23.8
Shale	5.8	29.6

Record No. 7514

Borehole No. PM-59 is located by Map Reference 11K/01A, Tract 74, Claim A.

Strata	Thickness (m)	Total Depth (m)
Overburden	2.6	2.6
Sandstone	33.7	36.3
Coal	1.0	37.3
Shale	7.3	44.6

Record No. 7515

Borehole No. PM-60 is located by Map Reference 11K/01A, Tract 73, Claim D.

Strata	Thickness (m)	Total Depth (m)
Overburden	5.0	5.0
Sandstone	9.8	14.8
Coal	1.3	16.1
Shale	7.5	23.6

Record No. 7516

Borehole No. PM-61 is located by Map Reference 11K/01A, Tract 73, Claim D.

Strata	Thickness (m)	Total Depth (m)
Overburden	3.0	3.0
Sandstone	34.1	37.1
Coal	1.2	38.3
Shale	6.3	44.6

Record No. 7517

Borehole No. PM-62 is located by Map Reference 11K/01A, Tract 73, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	3.6	3.6
Sandstone	32.2	35.8
Coal	1.2	37.0
Shale	3.0	40.0

Record No. 7518

Borehole No. PM-63 is located by Map Reference 11K/01A, Tract 73, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	6.0	6.0
Sandstone	15.2	21.2
Coal	1.2	22.4
Shale	5.6	28.0

Record No. 7519

Borehole No. PM-64 is located by Map Reference 11K/01A, Tract 73, Claim B.

Strata	Thickness (m)	Total Depth (m)
Overburden	6.8	6.8
Sandstone and shale	21.9	28.7
Coal	1.4	30.1
Shale	3.9	34.0

Record No. 7520

Borehole No. PM-65 is located by Map Reference 11K/01A, Tract 73, Claim B.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Shale and sandstone	32.9	39.9
Coal	0.9	40.8
Shale	5.2	46.0

Record No. 7521

Borehole No. PM-66 is located by Map Reference 11K/01A, Tract 72, Claim B.

Strata	Thickness (m)	Total Depth (m)
Overburden	8.0	8.0
Shale and sandstone, grey	7.5	15.5
Coal	1.2	16.7
Shale and sandstone, grey	6.2	22.9

Record No. 7522

Borehole No. PM-67 is located by Map Reference 11K/01A, Tract 73, Claim A.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Shale and sandstone, grey	12.8	19.8
Coal	1.2	21.0
Shale and sandstone, grey	1.5	22.5
Coal	1.5	24.0
Shale and sandstone, grey	7.6	31.6

Record No. 7523

Borehole No. PM-68 is located by Map Reference 11K/01A, Tract 73, Claim A.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Shale and sandstone, grey	26.0	33.0
Coal	1.2	34.2
Shale and sandstone, grey	6.0	40.2

Record No. 7524

Borehole No. PM-69 is located by Map Reference 11K/01A, Tract 73, Claim A.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.2	7.2
Shale and sandstone, grey	9.7	16.9
Coal	1.3	18.2
Shale and sandstone, grey	6.2	24.4

Record No. 7525

Borehole No. PM-70 is located by Map Reference 11K/01A, Tract 73, Claim A.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.6	7.6
Shale and sandstone, grey	23.0	30.6
Coal	1.2	31.8
Shale and sandstone, grey	4.9	36.7

Record No. 7526

Borehole No. PM-71 is located by Map Reference 11J/04B, Tract 84, Claim D.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Shale and sandstone, grey	33.0	40.0
Coal	1.6	41.6
Shale and sandstone	6.0	47.6

Record No. 7527

Borehole No. PM-72 is located by Map Reference 11J/04B, Tract 84, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	5.5	5.5
Sandstone	9.0	14.5
Coal	1.1	15.6
Shale	6.4	22.0

Record No. 7528

Borehole No. PM-73 is located by Map Reference 11J/04B, Tract 84, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Sandstone	30.6	37.6
Coal	1.0	38.6
Shale	4.4	43.0

Record No. 7529

Borehole No. PM-74 is located by Map Reference 11J/04B, Tract 84, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.5	7.5
Sandstone	0.5	8.0
Coal	1.0	9.0
Shale	5.5	14.5

Record No. 7530

Borehole No. PM-75 is located by Map Reference 11J/04B, Tract 84, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	6.0	6.0
Sandstone	16.5	22.5
Coal	1.0	23.5
Shale	6.0	29.5

Drill No. 19 was moved from Broughton to Reserve Mines area, Cape Breton County to test the coal on the Gardiner seam. This drilling was a continuation of work done previously as part of the Coal Inventory Program. There were 5 holes drilled between August 25 and September 16, 1982. All holes are vertical (Fig. 3).

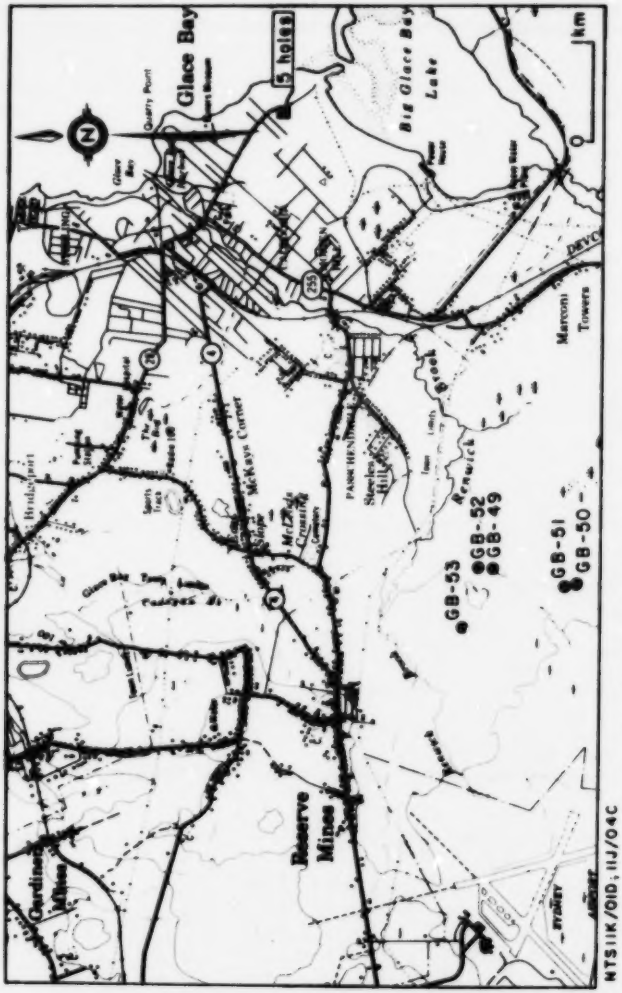


Figure 3. Reserve Mines and Glace Bay, Cape Breton County.

Record No. 7531

Borehole No. GB-49 is located by Map Reference 11K/01D, Tract 25, Claim Q.

Strata	Thickness (m)	Total Depth (m)
Overburden	4.5	4.5
Sandstone	3.5	8.0
Coal	0.8	8.8
Shale and sandstone	7.1	15.9
Coal	1.1	17.0
Sandstone	5.0	22.0

Record No. 7532

Borehole No. GB-50 is located by Map Reference 11K/01D, Tract 25, Claim H.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Shale, sandstone, bands of coal	33.0	40.0
Shale	9.0	49.0

Record No. 7533

Borehole No. GB-51 is located by Map Reference 11K/01D, Tract 25, Claim H.

Strata	Thickness (m)	Total Depth (m)
Overburden	5.0	5.0
Shale, sandstone, bands of coal	26.0	31.0

Record No. 7534

Borehole No. GB-52 is located by Map Reference 11K/01D, Tract 48, Claim A.

Strata	Thickness (m)	Total Depth (m)
Overburden	5.0	5.0
Sandstone	9.5	14.5
Shale	4.9	19.4
Coal and shale	1.4	20.8
Shale	6.6	27.4
Coal	1.2	28.6
Shale	5.4	34.0

Record No. 7535

Borehole No. GB-53 is located by Map Reference 11E/01D, Tract 48, Claim B.

Strata	Thickness (m)	Total Depth (m)
Overburden	3.0	3.0
Sandstone	26.7	29.7
Coal	1.2	30.9
Shale	11.1	42.0
Coal	0.7	42.7
Shale	4.9	47.6

Diamond Drill No. 19 was hired by Georgia Pacific Corp., from September 20 to October 18, 1982, to drill for gypsum in Big Brook, Inverness County. There were 13 holes drilled and they are located by Map Reference 11F/14A, Tract 59, Claims B and C. All holes are vertical (Fig. 4).

Record No. 7536

Borehole No. 82-1.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	27.0	27.0
Gypsum and clay	38.0	65.0
Gypsum	15.0	80.0
Anhydrite	16.0	96.0

Record No. 7537

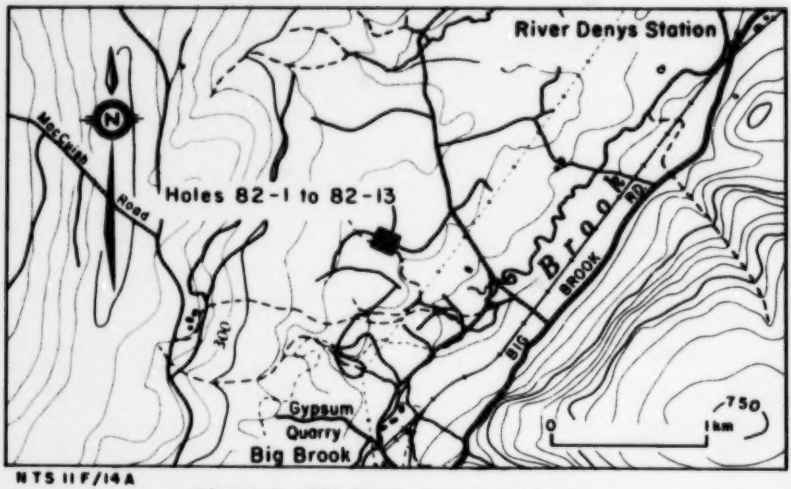
Borehole No. 82-2.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	44.0	44.0
Gypsum and clay	53.0	97.0
Anhydrite	15.0	112.0

Record No. 7538

Borehole No. 82-3.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	55.0	55.0
Gypsum and clay	42.0	97.0
Anhydrite	7.0	104.0



NTS 11F/14A

Figure 4. Big Brook, Inverness County.

Record No. 7539
Borehole No. 82-4.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	42.0	42.0
Gypsum and clay	40.0	82.0
Anhydrite	16.0	98.0

Record No. 7540
Borehole No. 82-5.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	45.0	45.0
Gypsum and clay	60.0	105.0
Anhydrite	13.0	118.0

Record No. 7541
Borehole No. 82-6.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	45.0	45.0
Gypsum and clay	60.0	105.0
Anhydrite	13.0	118.0

Record No. 7542
Borehole No. 82-7.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	48.0	48.0
Gypsum and clay	64.0	112.0
Anhydrite	16.0	128.0

Record No. 7543
Borehole No. 82-8.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	55.0	55.0
Gypsum	43.0	98.0
Anhydrite	10.0	108.0

Record No. 7544
Borehole No. 82-9.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	77.0	77.0
Gypsum, bands of anhydrite	23.0	100.00
Anhydrite	8.0	108.0

Record No. 7545
Borehole No. 82-10.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	100.00	100.00

Record No. 7546
Borehole No. 82-11.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	47.0	47.0
Gypsum	31.0	78.0
Clay and gypsum	20.0	98.0

Record No. 7547
Borehole No. 82-12.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	43.0	43.0
Gypsum and clay	63.0	106.0
Anhydrite	12.0	118.0

Record No. 7548
Borehole No. 82-13.

Strata	Thickness (ft.)	Total Depth (ft.)
Overburden	53.0	53.0
Gypsum and clay	57.0	110.0
Anhydrite	8.0	118.0

Diamond Drill No. 14, "Winkie", was used to drill 7 shallow holes for the Meguma Project in Wine Harbour, Guysborough County. The work was done August 25 to 27, 1982. The holes are located by Map Reference 11F/04B, Tract 69, Claim L (Fig. 5).

Record No. 7549
Hole No. 1

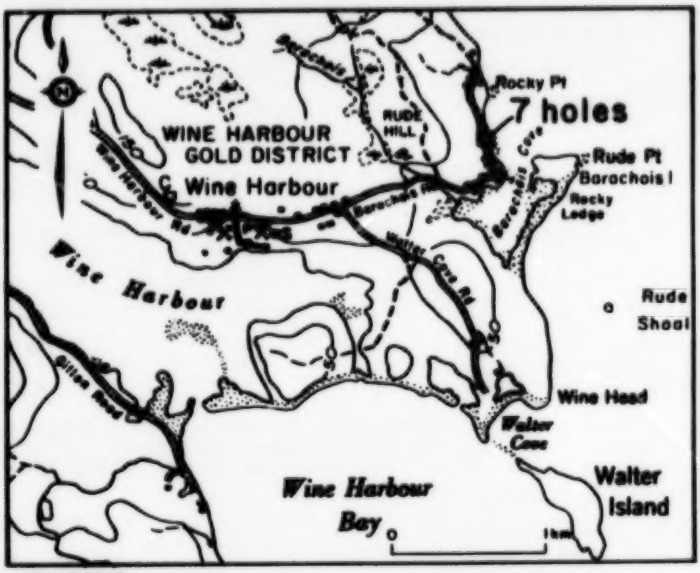
Strata	Thickness (ft.)	Total Depth (ft.)
Quartzite, grey	3.0	3.0

Record No. 7550
Hole No. 2

Strata	Thickness (ft.)	Total Depth (ft.)
Quartzite, grey	3.0	3.0

Record No. 7551
Hole No. 3

Strata	Thickness (ft.)	Total Depth (ft.)
Quartzite and quartz	4.0	4.0



NTS 11F/04B Figure 5. Wine Harbour, Guysborough County.

Record No. 7552
Hole No. 4

Strata	Thickness (ft.)	Total Depth (ft.)
Quartzite	3.0	3.0

Record No. 7553
Hole No. 5

Strata	Thickness (ft.)	Total Depth (ft.)
Quartzite and quartz	4.0	4.0

Record No. 7554
Hole No. 6

Strata	Thickness (ft.)	Total Depth (ft.)
Quartzite and quartz	24.0	24.0

Record No. 7555
Hole No. 7

Strata	Thickness (ft.)	Total Depth (ft.)
Quartzite	1.0	1.0

Diamond Drill No. 20 was hired by Jacques Whitford and Associates Ltd. from October 18 to 31, 1982 to drill 5 holes in Glace Bay, Cape Breton County. The purpose of drilling was for structure and to check for mine workings to determine if the area is suitable to build a new hospital. The holes are vertical and are located by Map Reference 11J/04C, Tract 58, Claim H. The holes are spaced about 30 m apart (Fig. 3).

Record No. 7556
Borehole No. 1

Strata	Thickness (m)	Total Depth (m)
Overburden	4.0	4.0
Coal	2.0	6.0
Sandstone and shale, grey	89.0	95.0
Old workings	1.4	96.4
Shale and sandstone, grey	3.6	100.0

Record No. 7557
Borehole No. 2

Strata	Thickness (m)	Total Depth (m)
Overburden	4.0	4.0
Sandstone and shale, grey and black	28.0	32.0
Old workings	3.0	35.0
Sandstone and shale, grey and black	5.2	87.0
Old workings	3.0	90.0
Sandstone and shale, grey and black	2.0	92.0

Record No. 7558
Borehole No. 3

Strata	Thickness (m)	Total Depth (m)
Overburden	4.0	4.0
Sandstone and shale, grey and black	28.0	32.0
Coal	3.0	35.0
Sandstone, grey	2.0	37.0

Record No. 7559
Borehole No. 4

Strata	Thickness (m)	Total Depth (m)
Overburden	4.0	4.0
Sandstone and shale	35.0	39.0
Hit old wood, mine workings at 39.0 m		

Record No. 7560
Borehole No. 5

Strata	Thickness (m)	Total Depth (m)
Overburden, broken coal and sand	4.0	4.0
Sandstone and shale, grey	22.0	26.0
Mine workings	15.0	41.0
Sandstone, grey	3.0	44.0

During the period November 19 to December 3, 1982 the Nova Scotia Department of Mines and Energy under Special Investigations drilled 3 holes in Diogenes Brook, Inverness County. The purpose of drilling was for silica sand. The holes are vertical and are located by Map Reference 11F/14C, Tract 3, Claim C (Fig. 6).

Record No. 7561
Borehole No. DB-1

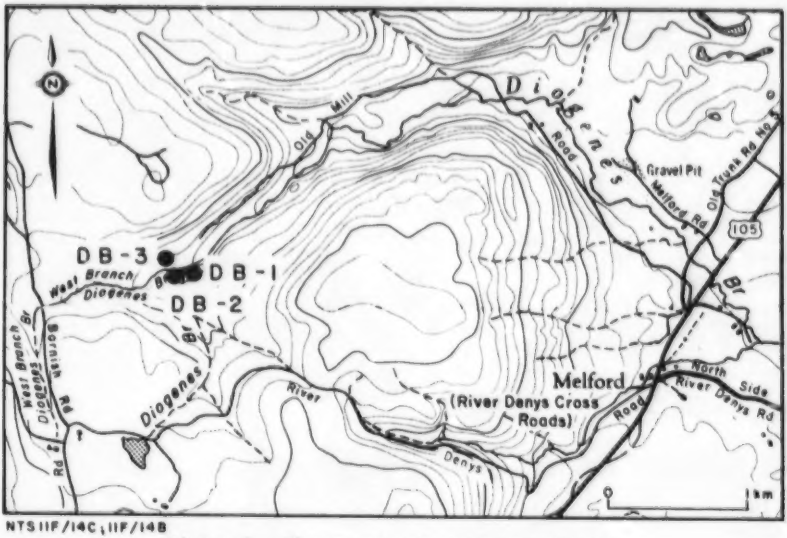
Strata	Thickness (m)	Total Depth (m)
Sand and clay	120.00	120.00
Conglomerate	1.0	121.0

Record No. 7562
Borehole No. DB-2

Strata	Thickness (m)	Total Depth (m)
Sand and clay	29.0	29.0

Record No. 7563
Borehole No. DB-3

Strata	Thickness (m)	Total Depth (m)
Sand and clay	23.0	23.0



NTS 11F/14C, 11F/14B

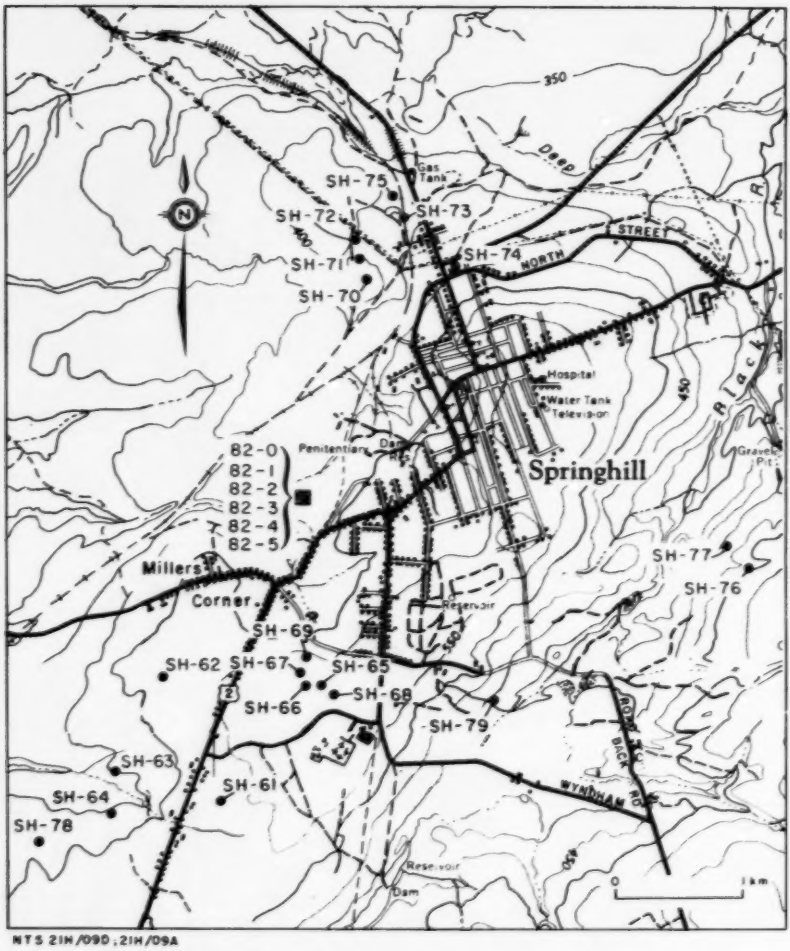
Figure 6. Diogenes Brook, Inverness County.

During the year 1982 there were 25 holes drilled in Springhill, Cumberland County. Although the drilling was not continuous all year the program is not completed and work will run into 1983. The drilling is for the Coal Inventory Program and is a continuation of work done in previous years. Six of these holes were drilled in the immediate area of the new mine site. All holes are vertical (Fig. 7).

Record No. 7564

Borehole No. SH-61 is located by Map Reference 21H/09A, Tract 100, Claim M.

Strata	Thickness (m)	Total Depth (m)
Overburden	8.5	8.5
Shale	75.0	83.5
Shale and sandstone	87.0	170.5
Coal	3.6	174.1
Shale, bands of coal	36.4	210.5



NTS 21H/09D; 21H/09A

Figure 7. Springhill, Cumberland County.

Record No. 7565

Borehole No. SH-62 is located by Map Reference 21H/09D, Tract 5, Claim G.

Strata	Thickness (m)	Total Depth (m)
Overburden	8.5	8.5
Shale and sandstone, grey	16.8	25.3
Coal	1.2	26.5
Shale and sandstone, grey	27.1	53.6
Coal	0.6	54.2
Shale and sandstone, grey	80.3	134.5
Shale, grey	7.5	142.0
Coal	1.5	143.5
Shale and sandstone, grey	20.0	163.5
Coal	1.2	164.7
Shale and sandstone, grey	28.3	193.0
Coal	3.0	196.0
Shale, sandy, grey	26.0	222.0

Record No. 7566

Borehole No. SH-63 is located by Map Reference 21H/09A, Tract 101 , Claim P.

Strata	Thickness (m)	Total Depth (m)
Overburden	9.1	9.1
Shale	11.4	20.5
Shale and sandstone, grey and red	132.0	152.5
Shale, grey	119.0	271.5
Coal and shale	2.0	273.5
Shale	1.0	274.5
Shale	39.0	313.5
Coal and shale	18.0	331.5
Shale	29.6	361.1
Coal	2.1	363.2
Shale	18.5	381.7
Coal	1.8	383.5
Shale	9.7	393.2

Record No. 7567

Borehole No. SH-64 is located by Map Reference 21H/09A, Tract 101, Claim K.

Strata	Thickness (m)	Total Depth (m)
Overburden	9.1	9.1
Shale, grey and red	16.9	26.0
Shale and sandstone, grey and red	72.0	98.0
Sandstone, grey	24.0	122.0
Sandstone and shale, grey	99.0	221.0

Shale and sandstone, grey	30.0	251.0
Shale, grey	0.7	251.7
Coal	2.3	254.0
Shale, grey	7.5	261.5
Coal	1.5	263.0
Shale, grey	4.0	267.0
Coal	1.0	268.0
Shale, grey	13.0	281.0
Siltstone and conglomerate, grey	45.0	326.0

Record No. 7568

Borehole No. SH-65 is located by Map Reference 21H/09D, Tract 4, Claim B.

Strata	Thickness (m)	Total Depth (m)
Overburden	1.0	1.0
Sandstone, grey	6.0	7.0
Siltstone, grey	16.5	23.5
Coal	2.0	25.5
Siltstone, grey	7.5	43.0
Coal	2.0	45.0
Siltstone, grey	15.0	60.0
Coal and shale, black and grey	4.0	64.0
Siltstone, grey	3.0	67.0
Shale, grey	2.0	69.0

Record No. 7569

Borehole No. SH-66 is located by Map Reference 21H/09D, Tract 4, Claim C.

Strata	Thickness (m)	Total Depth (m)
Sandstone, grey	4.0	4.0
Shale and sandstone, grey	18.0	22.0
Coal	1.6	23.6
Siltstone, grey	31.4	55.0

Record No. 7570

Borehole No. SH-67 is located by Map Reference 21H/09D, Tract 4, Claim F.

Strata	Thickness (m)	Total Depth (m)
Sandstone and siltstone, grey	11.0	11.0
Coal	2.0	13.0
Siltstone, grey	4.0	17.0
Sandstone and siltstone, grey	15.0	32.0
Coal	2.0	34.0
Siltstone, grey	9.0	43.0

Record No. 7571

Borehole No. SH-68 is located by Map Reference 21H/09D, Tract 4, Claim B.

Strata	Thickness (m)	Total Depth (m)
Overburden	5.0	5.0
Siltstone, grey	10.0	15.0
Coal and shale, black and grey	5.0	20.0
Siltstone, grey	14.0	34.0

Record No. 7572

Borehole No. SH-69 is located by Map Reference 21H/09D, Tract 4, Claim F.

Strata	Thickness (m)	Total Depth (m)
Overburden	6.0	6.0
Shale and sandstone, grey	47.0	53.0
Siltstone, grey	1.0	54.0
Coal	2.0	56.0
Siltstone, grey	22.0	78.0
Coal	2.0	80.0
Siltstone, grey	40.0	120.0
Coal and shale, black	7.0	127.0
Siltstone, grey	5.0	132.0

Record No. 7573

Borehole No. SH-70 is located by Map Reference 21H/09D, Tract 28, Claim G.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Clay and shale, grey	4.0	11.0
Siltstone, grey	30.0	41.0
Coal	1.0	42.0
Siltstone and sandstone, grey	11.0	53.0
Siltstone, grey	12.0	65.0
Coal	1.0	66.0
Siltstone, grey	4.0	70.0

Record No. 7574

Borehole No. SH-71 is located by Map Reference 21H/09D, Tract 28, Claim G.

Strata	Thickness (m)	Total Depth (m)
Overburden	9.0	9.0
Siltstone, red and grey	44.0	53.0
Coal and shale, black	1.5	54.5
Sandstone and siltstone, grey	19.5	74.0
Coal and shale, black	2.0	76.0
Siltstone, grey	6.0	82.0

Record No. 7575

Borehole No. SH-72 is located by Map Reference 21H/09D, Tract 28, Claim G.

Strata	Thickness (m)	Total Depth (m)
Overburden	6.0	6.0
Siltstone, grey	34.0	40.0
Coal	1.0	41.0
Siltstone, grey	12.0	53.0
Siltstone and clay, grey	12.0	65.0
Clay and coal, black	2.0	67.0
Clay and siltstone, grey	55.0	122.0
Siltstone, grey	15.0	137.0
Clay and siltstone, grey	15.0	152.0
Siltstone, grey	9.0	161.0
Siltstone and clay, grey	2.0	163.0

Record No. 7576

Borehole No. SH-73 is located by Map Reference 21H/09D, Tract 28, Claim J.

Strata	Thickness (m)	Total Depth (m)
Overburden	10.0	10.0
Clay and siltstone, grey	7.0	17.0
Siltstone, grey	2.5	19.5
Coal	0.5	20.0
Siltstone and sandstone, grey	12.0	32.0
Mudstone, grey	9.0	41.0
Coal	1.5	42.5
Mudstone, grey	16.5	59.0
Coal	2.0	61.0
Shale and mudstone, grey	12.0	73.0

Record No. 7577

Borehole No. SH-74 is located by Map Reference 21H/09D, Tract 27, Claim E.

Strata	Thickness (m)	Total Depth (m)
Overburden	2.1	2.1
Shale and sandstone, grey	50.3	52.4
Shale, grey	6.0	58.4
Coal	0.6	59.0
Shale, grey	3.9	62.9
Coal	0.6	63.5
Shale, grey	5.3	78.8
Coal	0.3	79.1
Shale, grey	4.7	83.8
Coal	1.6	85.4
Shale, grey	27.0	112.4
Shale, grey, sandy, broken	18.0	130.4
Siltstone, grey	46.6	177.0
Sandstone, grey, bands of conglomerate	10.4	187.4
Siltstone and shale, grey	51.0	238.4
Siltstone and conglomerate, grey	27.0	265.4
Siltstone, grey	17.6	283.0

Record No. 7578

Borehole No. SH-75 is located by Map Reference 21H/09D, Tract 28, Claim J.

Strata	Thickness (m)	Total Depth (m)
Overburden	8.0	8.0
Mudstone, grey	15.0	23.0
Coal	2.0	25.0
Mudstone and coal, grey and black	17.0	42.0
Mudstone, grey	1.0	43.0
Coal	2.0	45.0
Mudstone, grey	8.0	53.0

Record No. 7579

Borehole No. SH-76 is located by Map Reference 21H/09D, Tract 2, Claim P.

Strata	Thickness (m)	Total Depth (m)
Overburden	7.0	7.0
Shale, grey	73.0	80.0
Shale and conglomerate, grey	17.0	97.0

Record No. 7580

Borehole No. SH-77 is located by Map Reference 21H/09D, Tract 2, Claim P.

Strata	Thickness (m)	Total Depth (m)
Overburden	5.0	5.0
Mudstone, grey	39.0	44.0
Coal and shale, black and grey	4.0	48.0
Mudstone, grey	7.0	55.0

Record No. 7581

Borehole No. SH-78 is located by Map Reference 21H/09A, Tract 101, Claim E.

Strata	Thickness (m)	Total Depth (m)
Overburden	4.2	4.2
Shale and sandstone, grey	96.2	100.4
Shale and sandstone, grey and red	72.0	172.4
Shale and sandstone, grey	21.0	193.4
Shale and sandstone, red	18.0	211.4
Shale and sandstone, red and grey	28.6	240.0
Coal	0.6	240.6
Shale and sandstone, grey	3.8	244.4
Siltstone, grey	12.0	256.4
Sandstone, grey	6.0	262.4
Shale and sandstone (bands of coal) black and grey	27.0	289.4
Sandstone and siltstone, grey	30.0	319.4
Siltstone and shale, black	4.6	324.0
Coal	0.9	324.9
Siltstone and sandstone, grey and black	11.0	335.9
Coal	1.5	337.4
Sandstone, grey	12.0	349.4
Siltstone, grey	33.0	382.4
Conglomerate, grey	12.0	394.4

Record No. 7582

Borehole No. SH-79 is located by Map Reference 21H/09D, Tract 3, Claim C.

Strata	Thickness (m)	Total Depth (m)
Sandstone and gravel, grey	4.0	4.0
Clay and mudstone, grey	16.0	20.0
Mudstone, grey	13.5	33.5
Coal	1.5	35.0
Mudstone, grey	17.0	52.0
Coal	5.0	57.0
Mudstone, grey	5.0	62.0
Coal	1.5	63.5
Mudstone, grey	15.5	79.0

Record No. 7583

Borehole No. 82-0 is located by Map Reference 21H/09D, Tract 21, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	10.0	10.0
Sandstone and clay, grey	1.0	11.0
Sandstone and mudstone, grey	12.0	23.0
Sandstone and conglomerate with small coal stringers	6.0	29.0

Record No. 7584

Borehole No. 82-1 is located by Map Reference 21H/09D, Tract 21, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	10.0	10.0
Sandstone and mudstone, grey	6.6	16.6
Coal	4.0	20.6
Mudstone, grey	2.4	23.0

Record No. 7585

Borehole No. 82-2 is located by Map Reference 21H/09D, Tract 21, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	12.0	12.0
Coal	3.5	15.5
Clay, grey	0.5	16.0

Record No. 7586

Borehole No. 82-3 is located by Map Reference 21H/09D, Tract 21, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	12.0	12.0
Coal	1.0	13.0
Clay, grey	1.0	14.0

Record No. 7587

Borehole No. 82-4 is located by Map Reference 21H/09D, Tract 21, Claim C.

Strata	Thickness (m)	Total Depth (m)
Overburden	13.0	13.0
Clay, grey	1.0	14.0
Mudstone, grey	9.0	23.0
Coal	2.0	25.0
Old workings	1.0	26.0

Record No. 7588

Borehole No. 82-5 is located by Map Reference 21H/09D, Tract 21, Claim B.

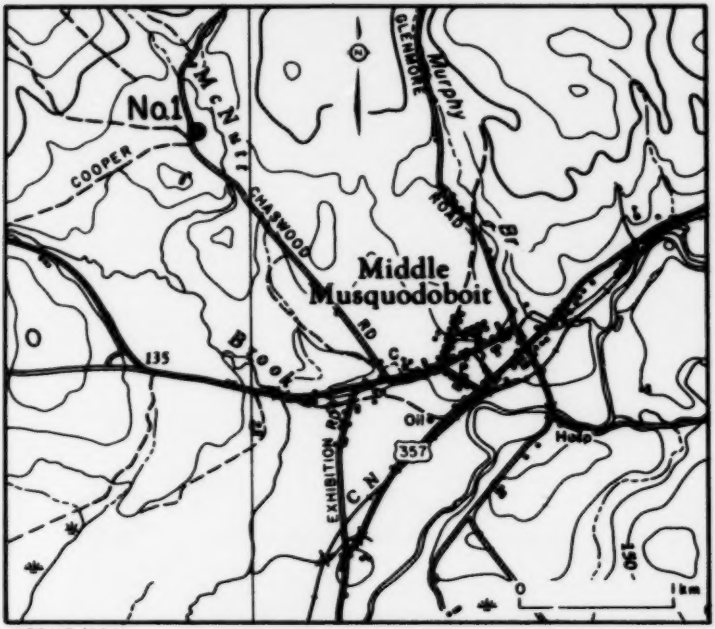
Strata	Thickness (m)	Total Depth (m)
Overburden	14.0	14.0
Mudstone, grey	6.0	20.0

From November 8 to 15, 1982 drill No. 20 was used to drill one hole at McNutt Brook near Middle Musquodoboit, Halifax County. The drilling was done under Special Investigations, Nova Scotia Department of Mines and Energy and the purpose was for silica sand. The hole is vertical and is located by Map Reference 11E/03A, Tract 57, Claim A (Fig. 8).

Record No. 7589

Borehole No. 1.

Strata	Thickness (m)	Total Depth (m)
Overburden	9.0	9.0
Sand and clay	44.0	53.0
Sand, clay and shale	23.0	76.0



NTS11E/03A

Figure 8. Middle Musquodoboit, Halifax County.

APPENDIX I

RECORD OF DRILLHOLES

BY

RECORD NUMBER

Record of Boring	Date of Boring	Object of Boring	Location of Borehole	Depth in Feet	Depth in Metres
7505	1982	Geological information	Sydney-Louisbourg Highway, Cape Breton County		1013.0
7506	1982	Coal	Broughton, Cape Breton County		26.5
7507	1982	Coal	Broughton, Cape Breton County		23.6
7508	1982	Coal	Broughton, Cape Breton County		32.6
7509	1982	Coal	Broughton, Cape Breton County		23.6
7510	1982	Coal	Broughton, Cape Breton County		35.6
7511	1982	Coal	Broughton, Cape Breton County		26.5
7512	1982	Coal	Broughton, Cape Breton County		41.6
7513	1982	Coal	Broughton, Cape Breton County		29.6
7514	1982	Coal	Broughton, Cape Breton County		44.6
7515	1982	Coal	Broughton, Cape Breton County		23.6
7516	1982	Coal	Broughton, Cape Breton County		44.6
7517	1982	Coal	Broughton, Cape Breton County		40.0
7518	1982	Coal	Broughton, Cape Breton County		28.0
7519	1982	Coal	Broughton, Cape Breton County		34.0
7520	1982	Coal	Broughton, Cape Breton County		46.0
7521	1982	Coal	Broughton, Cape Breton County		22.9
7522	1982	Coal	Broughton, Cape Breton County		31.6
7523	1982	Coal	Broughton, Cape Breton County		40.2
7524	1982	Coal	Broughton, Cape Breton County		24.4
7525	1982	Coal	Broughton, Cape Breton County		36.7
7526	1982	Coal	Broughton, Cape Breton County		47.6
7527	1982	Coal	Broughton, Cape Breton County		22.0
7528	1982	Coal	Broughton, Cape Breton County		43.0
7529	1982	Coal	Broughton, Cape Breton County		14.5
7530	1982	Coal	Broughton, Cape Breton County		29.5
7531	1982	Coal	Reserve Mines, Cape Breton County		22.0
7532	1982	Coal	Reserve Mines, Cape Breton County		49.0
7533	1982	Coal	Reserve Mines, Cape Breton County		31.0
7534	1982	Coal	Reserve Mines, Cape Breton County		34.0
7535	1982	Coal	Reserve Mines, Cape Breton County		47.6
7536	1982	Gypsum	Big Brook, Inverness County	96.0	
7537	1982	Gypsum	Big Brook, Inverness County	112.0	
7538	1982	Gypsum	Big Brook, Inverness County	104.0	
7539	1982	Gypsum	Big Brook, Inverness County	98.0	
7540	1982	Gypsum	Big Brook, Inverness County	118.0	
7541	1982	Gypsum	Big Brook, Inverness County	118.0	
7542	1982	Gypsum	Big Brook, Inverness County	128.0	
7543	1982	Gypsum	Big Brook, Inverness County	108.0	
7544	1982	Gypsum	Big Brook, Inverness County	108.0	
7545	1982	Gypsum	Big Brook, Inverness County	100.0	
7546	1982	Gypsum	Big Brook, Inverness County	98.0	
7547	1982	Gypsum	Big Brook, Inverness County	118.0	
7548	1982	Gypsum	Big Brook, Inverness County	118.0	
7549	1982	Rock geochem.	Wine Harbour, Guysborough County	3.0	
7550	1982	Rock geochem.	Wine Harbour, Guysborough County	3.0	
7551	1982	Rock geochem.	Wine Harbour, Guysborough County	4.0	
7552	1982	Rock geochem.	Wine Harbour, Guysborough County	3.0	
7553	1982	Rock geochem.	Wine Harbour, Guysborough County	4.0	

Record of Boring	Date of Boring	Object of Boring	Location of Borehole	Depth in	
				Feet	Metres
7554	1982	Rock geochem.	Wine Harbour, Guysborough County	24.0	
7555	1982	Rock geochem.	Wine Harbour, Guysborough County	1.0	
7556	1982	Structure	Glace Bay, Cape Breton County		100.0
7557	1982	Structure	Glace Bay, Cape Breton County		92.0
7558	1982	Structure	Glace Bay, Cape Breton County		37.0
7559	1982	Structure	Glace Bay, Cape Breton County		39.0
7560	1982	Structure	Glace Bay, Cape Breton County		44.0
7561	1982	Silica sand	Diogenes Brook, Inverness County		121.0
7562	1982	Silica sand	Diogenes Brook, Inverness County		29.0
7563	1982	Silica sand	Diogenes Brook, Inverness County		23.0
7564	1982	Coal	Springhill, Cumberland County		210.5
7565	1982	Coal	Springhill, Cumberland County		222.0
7566	1982	Coal	Springhill, Cumberland County		393.2
7567	1982	Coal	Springhill, Cumberland County		326.0
7568	1982	Coal	Springhill, Cumberland County		69.0
7569	1982	Coal	Springhill, Cumberland County		55.0
7570	1982	Coal	Springhill, Cumberland County		43.0
7571	1982	Coal	Springhill, Cumberland County		34.0
7572	1982	Coal	Springhill, Cumberland County		132.0
7573	1982	Coal	Springhill, Cumberland County		70.0
7574	1982	Coal	Springhill, Cumberland County		82.0
7575	1982	Coal	Springhill, Cumberland County		163.0
7576	1982	Coal	Springhill, Cumberland County		73.0
7577	1982	Coal	Springhill, Cumberland County		283.0
7578	1982	Coal	Springhill, Cumberland County		53.0
7579	1982	Coal	Springhill, Cumberland County		97.0
7580	1982	Coal	Springhill, Cumberland County		55.0
7581	1982	Coal	Springhill, Cumberland County		394.4
7582	1982	Coal	Springhill, Cumberland County		79.0
7583	1982	Coal	Springhill, Cumberland County		29.0
7584	1982	Coal	Springhill, Cumberland County		23.0
7585	1982	Coal	Springhill, Cumberland County		16.0
7586	1982	Coal	Springhill, Cumberland County		14.0
7587	1982	Coal	Springhill, Cumberland County		26.0
7588	1982	Coal	Springhill, Cumberland County		20.0
7589	1982	Silica sand	Middle Musquodoboit, Halifax County		76.0

APPENDIX II

RECORD OF DRILLHOLES

BY

CLAIM MAP

RECORD OF DRILLHOLES BY CLAIM MAP

Claim Map 11E/03A

Location of Drillhole(s): Middle Musquodoboit, Halifax County
Drilling Objective: Silica sand

Tract 57 Claim(s) A Record Number(s) 7589

Claim Map 11F/04B

Location of Drillhole(s): Wine Harbour, Guysborough County
Drilling Objective: Geological information

Tract 69 Claim(s) L Record Number(s) 7549-7555

Claim Map 11F/14A

Location of Drillhole(s): Big Brook, Inverness County
Drilling Objective: Gypsum

Tract 59 Claim(s) B, C Record Number(s) 7536-7548

Claim Map 11F/14C

Location of Drillhole(s): Diogenes Brook, Inverness County
Drilling Objective: Silica sand

Tract 3 Claim(s) C Record Number(s) 7561-7563

Claim Map 11J/04B

Location of Drillhole(s): Broughton, Cape Breton County
Drilling Objective: Coal

Tract 84 Claim(s) C Record Number(s) 7527-7530
D 7526

Claim Map 11J/04C

Location of Drillhole(s): Glace Bay, Cape Breton County
Drilling Objective: Structure

Tract 58 Claim(s) H Record Number(s) 7556-7560

Claim Map 11K/01A

Location of Drillhole(s): Sydney-Louisbourg Highway, Cape Breton County
Drilling Objective: Geological information

Tract 90 Claim(s) K Record Number(s) 7505

Location of Drillhole(s): Broughton, Cape Breton County
Drilling Objective: Coal

Tract 72	Claim(s)	B	Record Number(s)	7521
Tract 73	Claim(s)	A	Record Number(s)	7522-7525
		B		7519, 7520
		C		7517, 7518
		D		7515, 7516
Tract 74	Claim(s)	A	Record Number(s)	7513, 7514
		B		7511, 7512
		C		7507-7510
		D		7506

Claim Map 11E/01D

Location of Drillhole(s): Reserve Mines, Cape Breton County
Drilling Objective: Coal

Tract 25	Claim(s)	H	Record Number(s)	7532, 7533
		Q		7531
Tract 48	Claim(s)	A	Record Number(s)	7534
		B		7535

Claim Map 21H/09A

Location of Drillhole(s): Springhill, Cumberland County
Drilling Objective: Coal

Tract 100	Claim(s)	M	Record Number(s)	7564
Tract 101	Claim(s)	E		7581
		K		7567
		P		7566

Claim Map 21H/09D

Location of Drillhole(s) Springhill, Cumberland County
Drilling Objective: Coal

Tract 2	Claim(s)	P	Record Number(s)	7579, 7580
Tract 3	Claim(s)	C	Record Number(s)	7582
Tract 4	Claim(s)	B	Record Number(s)	7568, 7571
		C		7569
		F		7570, 7572
Tract 5	Claim(s)	G	Record Number(s)	7565

38 Drilling Logs of Gov't Core Drills, 1982

Tract 21	Claim(s)	B	Record Number(s) 7588
		C	7583-7587
Tract 27	Claim(s)	E	Record Number(s) 7577
Tract 28	Claim(s)	G	Record Number(s) 7573-7575
		J	7576, 7578